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Thawles

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PRINTING SYSTEM

Cross-Reference to Related Application

This application is a continuation of an application entitled "Printing System," Serial No. 09/689,370, filed on October 12, 2000, which is a continuation-in-part of an application entitled "Printing System," filed on March 12, 1998, Serial No. 09/041,211, Pat. No. 6,511,163, both of which are herein incorporated by reference.

Field of the Invention

This invention relates to jet printers, including jet printers for direct-to-plate printing systems.

Background of the Invention

Ink-jet printers operate by charging drops of ink with a charging electrode and guiding them to a print substrate through a high intensity electric field. Printers can modulate the charge on an ink drop by changing the charging electrode voltage to select whether each drop is to be printed or instead sent to a gutter. Printers may also adjust the charging voltage to compensate for aerodynamic effects and for the influence of the charge from adjacent drops. Some printers employ a technique known as "swathing" to continuously change the field and thereby direct drops from one or more stationary ink jets to different locations on the printing substrate, instead of moving a print head across the substrate.

Jet printing techniques are applicable to direct-to-plate printers. Such printers typically apply a printing fluid to a sheet of plate stock mounted on a drum. This fluid causes changes in the portions of the surface of the plate on which it is deposited. Although further processing of the plate may be necessary, the result is a printing plate that can serve to print large numbers of pages.

Summary of the Invention

In one general aspect, the invention features a continuous ink jet printer that includes an ink jet printing nozzle for a first color positioned to deposit ink drops on a substrate, and a deflection element located proximate an output trajectory of the ink jet printing nozzle and